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REPORT

OF THE

COMMISSIONERS

TO LOCATE THE

Iowa.

INSTITUTION FOR THE DEAF & DUMB

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AT

COUNCIL BLUFFS.



DES MOINES:
F. W. PALMER, STATE PRINTER.
1868.



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REPORT.

To His Excellency, Gov. WM. M. STONE:

In accordance with a requirement of an Act entitled "An Act to permanently locate the Institution for the Deaf and Dumb at Council Bluffs," approved April 3d, 1866, the undersigned Commissioners respectfully submit their report.

Events beyond our control compel us to ask your indulgence for the delay in presenting this report. The destructive fire which visited our city in the early part of last summer, and which laid in ruins, among other buildings, the large brick block in which, not only the accompanying plans, but all the other competing plans, were deposited, was the means of our losing wholly, or in part, two different sets of plans, and of scattering and defacing others. In the confusion incident to so extensive a conflagration it was impossible to tell whether the missing plans were destroyed, or simply mislaid. In the hope that they would be found we felt it to be our duty to postpone the decision as to which of the competing plans should be adopted. Had it not been for the delay thus unexpectedly arising, our report would have been presented on or before the time specified in the Act.

One of the first duties assigned us under the Act was to select a suitable site for the proposed Institution, which was to be of not less than thirty, nor more than eighty acres, and to be not more than one mile from the city of Council Bluffs. Sensible of the importance of securing an eligible tract of land for the use of such an Institution, the Commissioners spent some time in examining different sites in and around the city, and at last were unanimous in the choice of an eighty - acre tract just outside and at the south - east corner, of the city limits. It is on the public road leading from Council

Bluffs to Glenwood and Sidney, the county seats of Mills and Fremont counties, and within a few rods of the proposed route of the Chicago, Rock Island & Pacific Railroad. Though a projecting bluff hides from the view a large portion of the adjacent city, yet the site commands an extensive view both up and down the valleys of the Missouri river and of Musquito Creek. The last named stream crosses the north-west corner of the tract, thus furnishing an inexhaustible supply of never failing water at all seasons of the year. This we regard as an item of the utmost importance to every establishment where large numbers are expected to reside. While an elevated site would give the edifice a more imposing appearance, this would be a poor compensation for the loss of an abundant supply of so indispensable an article as water. The tract consists mostly of the rich bottom lands of the Missouri valley, unsurpassed, perhaps in the world, for fertility. But, passing eastwardly along the south side the land begins to rise toward the middle of the tract, at first gradually, and then more rapidly, forming a beautiful cone, behind which, at the extreme south-east corner, it rises quite abruptly almost to the top of the bluff which forms the dividing ridge between the Missouri and the Musquito valleys.

The title to this tract we have secured, in fee simple, to the State of Iowa, and without charge to the State; the citizens of Council Bluffs having cheerfully placed in our hands the funds necessary to accomplish this object. The deed, which we herewith transmit to you, has been recorded in the proper record book of Pottawattamie County, as required by the Act above referred to.

The selection of a plan of buildings for the Institution, we felt to be attended with a good deal of difficulty. To advise a plan for a specified number of pupils, so as to have all that is requisite in such an Institution, each part adapted to its purpose, and all so arranged as to constitute one complete and harmonious whole, is no easy undertaking. How much more difficult then must it be, to devise a plan for a young and growing State like ours, whose population is growing with such giant strides, which is destined to double itself in twelve years or less, and treble itself in about twenty years. The

plan of building which would suit the immediate wants of the State would be attended with the least expense at the outset, and would give the most satisfaction to those who look not beyond the present. Such was the course pursued in a number of the older States, and they are now reaping the disadvantages of it. In the great States of New York and Ohio, after putting up, year after year, great piles of buildings, adding to, and remodeling them at great cost, as circumstances seemed to require, they have, at length, found it absolutely necessary to abandon the whole, to tear them down and build entirely new from the foundation. Each of these States now have model Institutions, the latter improving somewhat on the former. Their new buildings have cost each of those States half a million dollars. This is in addition to almost equal sums which may now be regarded as almost thrown away on the old structures. In other States they are still suffering the inconveniences of such a system of patch-work,

The question for us to decide was— Shall we, like them, plan only for the present and the near future? or, shall we, profiting by their sad experience, devise a plan which, while it will suit the wants of the State for ten or twenty years to come, may, without any material alterations, but by future additions already contemplated in the original plan, be made to suit the constantly increasing numbers which, generation after generation, may seek to enjoy its advantages? Need we add that to us the latter policy seemed the wiser? In our circular letter, addressed to architects, we directed attention especially to this feature. We advertised as extensively as the limited means placed at our disposal would admit, and offered a premium of five hundred dollars for the best plan of an Institution which should accommodate not less than two hundred pupils, and so constructed that, without material changes, except by additions that would not destroy the harmony of the whole, it might be made to accommodate double that number of pupils.

In response to our circular some fourteen or fifteen plans were received, all possessing more or less merit. But the plan which most completely developed the idea above referred to, is that of Messrs. Schwartz and Dilger, of Springfield, Illinois. This we adopted and herewith transmit to you, with all the accompanying

drawings and specifications. Those drawings numbered from one to thirteen, inclusive, are the only ones embraced in the present contract. Those numbered from fourteen to seventeen, represent the same on a smaller scale, with the additions and alterations which may become necessary at a future day, when Iowa shall teem with a population equal to that of Ohio at the present time. The first set of drawings represents a building complete in all its parts and capable of accommodating over two hundred pupils comfortably. The second set of drawings shows the same buildings somewhat modified as to their internal arrangement, and having added to them other buildings in the rear which, taken together, represent an Institution complete in all its parts, conveniently arranged, and capable of accommodating not less than twice the original number. Adopting such a plan as this, the State will avoid that immense loss which has been sustained by some of the older States where a different policy has been pursued.

But do some inquire — “How long will it be before Iowa will need an Institution large enough to accommodate two hundred pupils?” We reply — “There are at this time within the bounds of our State two hundred mutes who ought to be in school, and who would be there if the proper accommodations were provided, the proper facilities afforded, and the proper influences brought to bear successfully upon their parents and friends. If two hundred pupils should enter the Institution, immediately on its completion according to the contract, in the fall of 1870, it would require seven years for them to complete a regular course of instruction. In the meantime, moreover, the same causes which have heretofore produced deaf-dumbness would still be in operation, bringing into existence not far from an average of thirty-three new cases per annum, so that at the expiration of seven years there would be near two hundred and thirty-one new subjects for the Institution.

The mode in which we arrive at the above conclusions is a very simple one. It is not based upon mere hypothesis, but upon a comparison of statistical information obtained at various periods and in different parts of our country. From such a comparison it is found that, in the Northern States of our Union generally, the ratio of deaf

mutes is as one to about seventeen hundred and fifty of the population. Supposing the present population of Iowa to be one million, the above ratio will give five hundred and seventy as the present number of deaf mutes in the State, and forty-seven or forty-eight as the annual increase. According to this ratio the number of deaf mutes in Iowa during the next ten years, after the completion of the buildings, will be as follows, viz :

In 1871.....	760.	In 1876.....	997.
In 1872	807.	In 1877.....	1,045.
In 1873.....	855.	In 1878.....	1,092.
In 1874.....	902.	In 1879.....	1,140.
In 1875.....	950.	In 1880.....	1,187.

Supposing thirty years to be the average duration of human life, we find that the average number of births and deaths per annum among the mute population during the years above specified, would be thirty-three. During the first five years of this period the number would vary from twenty-five to thirty-three; and during the remaining portion it would rise from thirty-three to forty. During the whole period of ten years, therefore, there would be an average of thirty-three new subjects coming forward every year to claim the advantages of the Institution.

If the above calculations be correct, and they are certainly not far from the truth, then Iowa does not lack numbers within her own borders to justify the establishment at once of an Institution complete in all its departments. If the attendance of all the mutes in the State, who are of the proper age, could be secured, there are enough within its borders to maintain a school of two hundred pupils for the first ten years subsequent to the completion of the edifice, after which the number would gradually increase, with the growth of the population of the State, until in twenty years, or less, further provisions would be required for their accommodation.

But some may ask — Have we any reason to expect that such numbers will apply to be received into the Institution? In reply we would say that much will depend upon the policy pursued by the State in regard to the Institution, and upon the efforts made by its friends, and the friends of suffering humanity, to secure this object.

Under the most favorable circumstances it is probable that a few of those entitled to the privileges of the Institution will, from one cause or another, be withheld from a participation in those privileges. Unblest with the light of education, the condition of the deaf mute is so deplorable, and, on the other hand, so elevating and so cheering are the effects of the light, when made to shine into his darkened mind, that one would suppose it were only necessary to establish such an Institution and render it accessible to all, in order to secure these inestimable privileges to every individual of this unfortunate class. But such, we are compelled to admit, is not the case. Experience in our own, as well as in other States, has proved that, in order to secure anything like a full attendance, something more must be done. Though the State make the most ample provision for her deaf and dumb; though she erect a commodious and tasteful edifice for their accommodation; though she add thereto all the conveniences that may be found in the best Institutions in the land; though she place over it the most efficient officers and teachers; though she open its doors to all, and invite all to partake freely of her bounty; and, in a word, though she make the most perfect and complete provision for the physical, intellectual, social and moral wants of her deaf and dumb, yet, if no further efforts, and of a more direct nature, be made, there will still be found many of those whom it was her generous purpose to enlighten and bless, who, through the ignorance, poverty, unfounded prejudices, misguided affection and miserable self interest of parents, will be withheld from these blessed privileges.

The natural protectors of the deaf and dumb are often found to be their worst enemies. It is the unhappy lot of many of these children of misfortune to possess parents who feel little or no concern respecting the intellectual and moral condition of their deaf mute children. Ignorant themselves, they know not how to appreciate the advantages of an education. In regard to their mute offspring especially, they are apt to look upon every effort to enlighten the dark minds as labor thrown away. Never having witnessed the fruits of such labors upon others in like circumstances, they are slow to believe that anything good or great can be done for them, or that their condition can be materially improved or

elevated. Perhaps they are ashamed to let it be known that there is a mute child in the family, and use every means to screen it from the observation of others. Though they may have heard of Institutions being established for the benefit of the deaf and dumb, they have no adequate conception of what they are capable of accomplishing.

The very nature of the calamity which the poor mutes suffer precludes the possibility of their urging their own claims. Their tongues are speechless. So thick, too, is the darkness in which their minds are beclouded, that they do not themselves generally come to comprehend the nature of their wants until it is too late to remedy the evil. But though their own tongues be mute; though their voices be sealed in unbroken silence, no friend of humanity can be indifferent to their claims. Their forlorn condition — their very silence, speaks with an eloquence which touches and vibrates in every philanthropic heart.

To remove the various obstacles in the way of the education of the deaf mute, is the work of time, and requires the use of a variety of means. Among the means most essential are the establishing and maintaining of an Institution which shall, as far as possible, secure universal confidence, and then the making this fact known to the remotest corners of the State. The first necessity is a building complete in all its parts and adapted to the wants of such an Institution; provided with the necessary fixtures for supplying it with light, heat, ventilation and water; provided also with all the means and appliances which are found of advantage in facilitating the business of instruction, in adding to the comfort of the household, and in promoting the general welfare. Great care should be exercised in the choice of officers, instructors and other employees of the Institution, that those, and those only, be employed who possess the requisite qualifications of head and heart for the work in which they are engaged. They should not only be competent, faithful, honest and upright, but they should also possess more than ordinary kindness of heart and affability of manners. While the former qualities are necessary in order to secure the confidence of the public, the latter are of the first importance in obtaining the

confidence of the pupils and their parents. The government of the Institution should be parental. Those in authority should endeavor, as far as possible, to awaken and keep alive towards themselves those filial feelings, in the breasts of their pupils, which they exercise toward their parents. Such a system of management will render the Institution a pleasant and attractive home to the pupils, and it will have a considerable influence in swelling the numbers of those who will avail themselves of its advantages; whereas an opposite course will drive away many who would otherwise attend. The same observations might, indeed, be made, in regard to schools of all kinds; and in regard to the government of children under all circumstances: but we allude to them here because they are peculiarly applicable to the government of the deaf and dumb. Having been almost always the favored ones at home, experiencing a more than ordinary share of parental tenderness, it is but natural that they should look for the same sympathy and kind treatment, and the same watchful regard to their interests from those who have assumed the care and management of them in their new home.

As a further means of rendering the Institution generally acceptable, and thereby indirectly removing the obstacles in the way of the education of many, the course of instruction should be ample, and the period allowed to each pupil should be long enough to enable any one possessed of respectable talents, with proper diligence, to perfect himself in the branches taught.

But beside making the Institution what it ought to be, what the wants of the deaf mute population of the State seem to require, what the claims of suffering humanity imperatively demand at the hands of so great a State as that of Iowa, unless a knowledge of these facts is convincingly brought to bear upon the parents and friends of the mutes, many of these children of silence will grope their way through life in midnight darkness, unblessed and unbenefitted by all the generous provisions made for their good. The ignorance of parents and friends, in regard to the benefits which the Institution is designed and calculated to confer; their false impressions and unfounded prejudices must, as far as possible, be removed. To effect this, every thing which tends to spread a knowledge of the Institution widely

over the State, is of advantage. An extensive circulation of the Biennial Reports of the Directors, would, no doubt, exert a good influence. A copy of it should, at least, be placed in the hands of every mute in the State, or his parents, every editor of a newspaper, and every clergyman. It would be well, also, to furnish a copy to many others of various professions and occupations. An interest would thereby be excited in many minds, which would lead to further inquiry and action, and result in the intellectual and moral elevation of some poor mutes.

But undoubtedly the most effectual way of securing this object, of awakening interest in the public mind, of dispelling the doubts, the fears and the prejudices of the deaf and dumb, and of their friends, and of prompting them to desire and seek a participation in the advantages of the Institution, is to let them be eye-witnesses of the benefits it has conferred upon others. Every suitable opportunity should be embraced to exhibit the attainments of the pupils to public assemblies of all kinds. These exhibitions more clearly and more satisfactorily demonstrate the advantages of the Institution; they make a deeper impression, and excite a deeper interest in the minds of the beholders than anything that can be said or written upon the subject. They address themselves alike to the learned and the unlearned. Even the untaught deaf mute, who knows not a word of either oral or written language, enters at once into the spirit of such an exhibition. The parent, too, if he be present, can not but be affected when he compares the bright, intelligent and cheerful countenances of the educated mutes with that of his own ignorant, neglected child. If his ignorance, or prejudice, or misguided affection, or even selfishness that has prompted him to keep back his offspring from the enjoyment of the same high privileges, he will find these all giving way, as he sees demonstrated before his eyes the almost magic effect of an education in elevating the afflicted class to which his child belongs. If he had previously been ashamed even to let it be known that he had a mute child in his family; if the feeling of a father toward it had almost expired under the deep-felt burden of such a calamity, the spectacle before him will beckon them back into existence; they will be revived when he beholds the animated and

sprightly faces of the educated mutes, and when he witnesses the interest which they excite in every beholder.

If such exhibitions could be given in every part of the State, and if the parents, with their children, could be induced to attend, we verily believe that few would be able to withstand the effect which they are calculated to produce. The obstacles in the way of many would vanish before so convincing an argument, and the distressed and neglected objects of so overwhelming a calamity, would be raised from their dark, sad and lonely condition, and made partakers with others, of those social, intellectual and religious enjoyments from which they are now almost wholly excluded.

Entertaining such views with respect to the growing necessities of the deaf mute population of our State; and believing that our intelligent, enterprising and generous people will not be satisfied with dealing out from their abundance, with a parsimonious hand, simply to those unfortunate mute children who, unmasked, knock at their doors for the blessed boon of an education; but that, prompted by a humane desire to extend this exalted privilege to every individual of this afflicted class, they would seek them out from every corner of the State, and give their friends no rest until they should consent to place them where the rays of light and truth might reach their dark minds; we, as commissioners, felt that we would render ourselves justly censurable, if we did not adopt and recommend such a structure as would afford ample accommodations for all.

For a detailed description of the plan which we have adopted, we refer you to the accompanying specifications and drawings. That the plan is faultless we do not pretend to say. In some respects it might, no doubt, be modified to advantage. Provision is made in the specifications, for such modifications, in case they be found desirable. It is probably seldom that a building, of such dimensions, is erected in exact accordance with the first design. It may be well, therefore, to empower the Superintendent who may be appointed, or, if deemed best, the Commissioners, to make such minor changes as may be, on careful examination, found expedient.

After deciding upon the plan, the Commissioners advertised for proposals, in several newspapers, and, beside, sent circulars to con-

tractors both in and out of the State. These proposals we herewith lay before you. They are all, as you will perceive, for the furnishing of all materials, and completing the entire work, according to the plans and specifications. The names of the parties, with the amounts of their several bids, are as follows, viz :

J. W. Hill.....	.....	.....	\$315 000
Jacob Reichard.....	.....	.....	300 000
J. W. Fuller.....	.....	.....	325 000
Samuel S. Keller.....	.....	.....	350 000
John T. Baldwin.....	.....	.....	390 000
John Hammer.....	.....	.....	425 000
Henry Pascal.....	.....	.....	400 000
Johnson & Orr.....	.....	.....	450 000

Mr. Jacob Reichard's bid being the lowest, we awarded the contract to him, conditioned upon his furnishing bonds to the amount of one hundred and fifty thousand dollars to secure the faithful performance of the contract: and conditioned, also, upon the acceptance and approval of the contract by the State. We have given him twenty days from the 23d of December, the date of the contract, to make up the bond of \$150,000, above referred to, and herewith forward his bond for \$10,000, that he will, within that time, furnish the larger bond, with approved securities.

The following abstract will show what disposition we have made of the funds placed in our hands :

	DR.	CR.
To amount received from State Treasurer.....	\$997 50	
By cash paid advertising (see bills).....		\$468 83
By cash paid expressing plans.....		18 75
By cash paid telegrams.....		2 20
By cash paid clerk hire.....		5 00
By cash paid stationery		3 50
By cash paid tin case for plans.....		1 75
By cash paid surveying and platting grounds		12 00
By cash paid premium for best plan.....		485 47
		<hr/> \$997 50

There is still due Messrs. Schwartz & Dilger on premium for the best plan (\$15) fifteen dollars. There is also still due for advertising, to the proprietors of the Des Moines Register, a small bill, the amount of which we have not yet ascertained.

As stated in the outset of our report, two of the competing plans, with accompanying drawings, specifications and other documents, valuable to the owners, were, as we suppose, burnt at the time of the fire there alluded to. One of these was sent to us by Edward C. Caldwell of Boston, Massachusetts, and the other by S. B. Elliott of Mansfield, Pennsylvania. These plans, we can testify, were gotten up evidently with great care, and at considerable cost to the authors. The loss is felt seriously by them, and they have each presented a claim upon us for damages, sustained by them, while these plans were in our possession. The amount of their claims, two hundred dollars each, we do not think exorbitant, considering the amount of time and labor that must have been bestowed upon them ; and we would therefore, recommend that they be allowed.

And now, in closing the record of our transactions, permit us to urge upon you, and through you, upon the General Assembly, the propriety of at once providing the necessary funds to carry on to completion the noble enterprise in which the State has embarked. Surely none will question the ability of the State to push forward the enterprise without embarrassment. What State in the Union is in a better condition financially than Iowa? Encumbered with no public debt, and yet possessing such vast resources and such unlimited credit, where is there room for doubt on this subject? There can only be a question of expediency, as to what is the best method of securing the funds, as fast as they are needed ; whether by direct taxation, or by the issue of bonds.

This question we deem it unnecessary for us here to discuss. Allow us, however, to contrast the condition of Iowa to-day with that of her sister States, Illinois and Indiana, when they first undertook to provide for their deaf mute population. Repudiation was staring them in the face. Their bonds were selling at less than fifty cents on the dollar. Illinois with a population one-third less than Iowa now contains ; with only sixty miles of her railroads com-

pleted; and groaning under a debt of seventeen millions of dollars, laid the foundation of her noble edifice for the deaf and dumb, and not long after, pushed it on to completion, together with like creditable Institutions for the Insane and Blind. With such examples before her shall Iowa plead poverty? With her magnificent net work of railroads, already numbering almost thousands of miles, her model Hospital for the Insane, and her Asylum for the Blind, already completed, shall she hesitate, through a plea of poverty, or a dread of financial embarrassment, to make such provision for her unfortunate mute children as their necessities so loudly demand? Can she turn a deaf ear to their silent but impressive plea? Shall the unwelcome news be borne to the more than one hundred poor mutes, now ready and waiting to be educated, that they must wait a few years longer? Many of them are fast approaching a period of life when they can not be benefitted, however ample the provisions. Shall these, by the delay, be doomed to a life of gloom and hopeless ignorance? We trust not. The liberal provision already made by our State for her Insane, her Blind, and for her Soldier Orphans, are a pledge and guarantee that she will not turn a deaf ear to the urgent plea of these other sons and daughters of misfortune.

Respectfully submitted,

THOS. OFFICER,
E. HONN,
CALEB BALDWIN.

CONTRACT

KNOW ALL MEN that we, Thomas Officer, Caleb Baldwin E. Nunn, commissioners appointed by the State of Iowa by an act of the Legislature intitled "An act to permanently locate the Institution for the Deaf and Dumb at Council Bluffs" approved April 3d 1866, in behalf of the State of Iowa and by virtue of the authority by said act conferred upon us, as party of the first part, and Jacob Reichard, contractor, of the County of Marion in said State, party of the second part, have this the 23d day of December A. D. 1867 made and entered into the following articles of agreement, — namely:

1. The said commissioners, party of the first part, having accepted of the proposition of the party of the second part, a copy which said proposition is hereto annexed and made a part of this agreement, to erect the buildings for said Institution, do hereby agree to employ the said Jacob Reichard party of the second part, to erect said buildings, upon the terms and conditions herein after named.

2. The said party of the second part for the consideration herein-after named, agree to furnish all the material, and erect said buildings, of the dimensions, and according to the plans and drawings now on file in the office of said commissioners, and the specifications hereunto attached and made a part of this agreement; the said plans, drawings and specifications being the same that were submitted by Schwartz & Dilger, Architects, of Springfield, Illinois, and adopted by said commissioners as the plan upon which said buildings should be constructed, and the same as referred to in the proposition of the said party of the second part, and above referred to as a part of this agreement.

3. The said party of the second part, agrees to erect said buildings upon such portion of the ground selected by said commissioners for the location of said Institution near Council Bluffs, as the said commissioners may direct, and have the same fully completed in strict compliance with all of said plans, drawings and specifications, and ready for occupancy by the 1st day of October, A. D. 1870.

4. The said party of the second part agrees to execute and deliver to said commissioners, in twenty days from this date, a bond to the State of Iowa, in the penal sum of one hundred and fifty thousand dollars, with sureties to be approved by the said commissioners, conditioned that he will, as soon as this agreement is approved by the Legislature of the State, as provided in the act above referred to, commence the work on said building, and have the same completed, in accordance with the terms of this agreement, and ready to be occupied by the 1st day of October, A. D. 1870, and that he will invest whatever sum or sums of money that may be advanced to him by the State of Iowa, on this contract, in such material as is required to be used in the construction of said buildings, and pay to the State of Iowa all damages which may be sustained by said State, from the failure of said party of the second part, in any respect to fulfill any portion of this agreement.

5. The said party of the first part agrees that the State of Iowa shall pay to the party of the second part in consideration for the erection of said building, in compliance with the terms of this agreement, the sum of three hundred thousand dollars, — twenty-five thousand dollars of said sum to be paid as soon as this contract is approved by the Legislature aforesaid and the proper appropriation made therefor, in order to enable the party of the second part to procure material for said building, the said party of the second part having first given the bond above referred to, conditioned to faithfully perform this contract, and conditioned that any sum thus advanced, shall be faithfully invested in material for said building. The remaining portion of said three hundred thousand dollars to be paid as the work on said building progresses, in payments of twenty-five thousand dollars each, upon estimates made by the superintendent or such person or persons as the Legislature may direct, excepting

the last payment of twenty-five thousand dollars, which is not to be paid until the work is completed.

6. It is expressly understood that this contract is made under the provisions of the act of the Legislature above referred to in the location of the Deaf and Dumb Asylum at Council Bluffs, Iowa, and that the same shall be obligatory on the part of the State of Iowa, when the same is approved by the Legislature thereof.

7. It is agreed that the plans and drawings as referred to in this agreement and now on file in the office of said commissioners embrace the following:

No. 1 — Basement.

No. 2 — First story.

No. 3 — Second story.

No. 4 — Third story.

No. 5 — Basement and third floor.

No. 5½ — First and second stories.

No. 6 — Fourth story and roof plans.

No. 7 — Staff section of building.

No. 8 — Truss roof.

No. 9 — Details of windows, inside finish &c.

No. 10 — Belting course &c.

No. 11 — Details of interior finish.

No. 12 — Detail doors.

No. 13 — Front elevation.

Executed at Council Bluffs, Iowa, on the day and date named in this agreement.

[Revenue Stamp.]

THOS. OFFICER,
CALEB BALDWIN,
E. HONN,
JACOB REICHARD. } Commissioners in
} behalf of the
} State of Iowa.

To the Board of Commissioners appointed for the purpose of receiving proposals for the erection and completion of said buildings, in accordance with the plans, drawings and specifications now on exhibition at the office of said Commissioners at Council Bluffs, Iowa:

GENTLEMEN: The undersigned party will bind himself to furnish all the necessary material required for the completion and construction of a building for the use of the Iowa State Institution for the Deaf and Dumb, located in Council Bluffs, Iowa, in every particular agreeable to the plans and specifications executed by Schwartz & Dilger, architects, Springfield, Illinois, for the sum of three hundred thousand dollars, and complete the same on or before the first day of October 1870, with approved security for the faithful performance of the contract, and do all the work to the entire satisfaction of the Superintendent.

JACOB REICHARD.

SPECIFICATIONS

Of the workmanship and materials required in the erection and completion of the "Institution for the Deaf and Dumb," for the State of Iowa, to be located at Council Bluffs, agreeable to the Drawings made for that purpose, by

SCHWARTZ & DILGER,
Architects.

Office in Springer's Building, Springfield, Illinois.

DUTIES OF THE CONTRACTOR.

Contractor.—Contractors will be strictly held to execute such work and to use such materials as hereinafter described, and in all cases where the drawings are figured, the figures must be taken by them as the given dimensions, without reference to the scale. They will be further held to submit as to the character of the materials used and the work done, to the judgment of the superintendent, and to procure from him all necessary interpretations of the design, and all necessary certificates regarding payments.

DUTIES OF THE SUPERINTENDENT.

Superintendent.—The architect, or his assistant, appointed by the committee, are declared to be superintendents of the work for the

building committee. Their duties will consist in giving, on demand, such interpretations, either in language, writing or drawing, as in their judgment the nature of the work may require, having particular care that any and all work done, and materials used for the work, be such as is hereinafter described; in giving, on demand, any certificates that the contractor may be entitled to, and in settling all deductions of, or additions to, the contract price, which may grow out of alterations of the design, after the same is under contract; also determining the amount of damages which may accrue from any cause, and particularly to decide upon the fitness of all materials used, and work done.

Improper work and Materials. — The contractor, his foreman or clerk, being bound, in all cases, to remove all improper work or materials upon being directed so to do, by the superintendent, at any time, and all times, within forty-eight hours after receiving written notice to that effect from the superintendent.

But the contractor, if after having been directed as above, to remove the same, should refuse or neglect so to do, shall not only suffer a deduction from the contract price of the difference in value of proper and improper work and materials, but shall, also, be liable for all damages of whatsoever nature or kind that may result from such cause. The above provisions to apply in the same way to all materials or work used, made or fixed, without the knowledge of the superintendent, and not approved by him. The superintendent shall be at liberty, if in his judgment the case requires, to replace the same, and make good every part, at the cost and charges of the contractor.

Delay and Inability. — In case of delay, by the contractor, in providing and delivering the requisite materials, or in the advancement of the buildings, or work, or of a deficiency of workmen, or for misconduct, inattention or inability, the superintendent shall be at liberty (after giving to or leaving for the contractor, his foreman or clerk, six day's notice in writing), to provide, with the consent of the committee, at the expense of the contractor, all such materials, and employ an increased number, or such number of workmen, at such wages as the superintendent shall think proper, and the cost and

charges incurred shall be retained out of the contract amount, and paid by a reservation from the estimates from time to time, or amounts thereof which may be due, or recoverable as liquidated damages.

Alterations of Design. — The building committee reserve the right, by conferring with the architect, to alter or modify the design, and to add to or diminish from the contract price, the architect to be at liberty to make any deviation from or alteration in the plan, form, construction, detail and execution, described by the drawings and specifications, without invalidating or rendering void the contract; and in case of any difference in expense, an addition to or abatement from the said contract amount shall be made in the ratio or proportion such work may bear to the whole contract - works agreed to be performed, and the same to be determined as before mentioned.

Acts of the Superintendent. — The committee being bound, in all cases, to recognize the acts of their superintendent, not only as regards extra work, but also, to the sufficiency of the design, materials, and workmanship.

The superintendent's opinion, certificate, report and decision, on all matters, to be binding and conclusive.

Liability of Contractor. — All payments made on work during its progress are on account of the contractor, and shall in no case be construed as an acceptance of the work executed; but the contractor shall be liable to all the conditions of the contract until the work is accepted as finished and completed.

GENERAL DESCRIPTION OF THE BUILDING.

Dimensions. — The dimensions of the building are as represented by and figured on the drawings. It contains the following apartments, viz.:

Apartments. — 1. Administrative office, which will be the general business office of the superintendent, and such assistants as he may have, and also the business and meeting room of the Board of Trustees.

2. Steward's office.
3. Matron's office.

4. Reception room for visitors, &c.
5. Baggage and visitors' attendant's room.
6. Physician's office and dispensary.
7. Reading room, library and museum, for the use of teachers and the high classes.
8. Private rooms of superintendent, consisting of parlor, sitting room, two bed rooms and bath room, together with private dining room, small kitchen, and two spare rooms.
9. Private rooms of the steward.
10. Private rooms of the matron.
11. Private room of lady teacher.
12. Bath room for matron, lady teacher, &c.
13. Private rooms for first and second assistant matrons.
14. Private room for boys' attendant.
15. Private room for male servants.
16. Private room for female servants.
17. Play room for boys.
18. Play room for girls.
19. Study for boys, with hook room.
20. Study for girls with hook room.
21. School rooms.
22. Laundry.
23. Drying room.
24. Ironing room.
25. Sewing room.
26. Dressmaker's room.
27. Store room.
28. Dormitories, wash and bath rooms.
29. Parlor for high class pupils.
30. Hospital for boys, with bath room, and tea kitchen.
31. Hospital for girls, with bath room and tea kitchen.
32. Convalescent room for boys.
33. Convalescent room for girls.
34. Linen room.
35. Room for bedding.
36. Chapel.

37. Hall for festivals, &c.
38. Kitchen with pantry.
39. Bakery with store room.
40. Dining Hall.
41. Rooms for heating.
42. Rooms for fuel.
43. Trunk room.
44. Broom room.
45. Room for shoe blacking.
46. Spare rooms.

Ground plan arrangements.—The dining hall, the kitchen and bakery in the basement, the various offices, the reading room and library, in the first story, the school rooms, in the second story, and the chapel in the third story, are centrally located, while the entire female department is in one wing, and the male department in the other. Males and female have therefore direct communication with all the apartments mentioned, without the necessity of passing through the corridors of the other sex. The kitchen and bakery are entirely shut off from the balance of the building, and communicate with the dining hall only through slides in the wall. They have a common entrance from the rear. Each wing has a separate entrance from the rear in the basement, and communication between the two wings in that story is only had through the dining hall. Two flights of stairs, from the basement to the third story, establish communication between the several stories in each wing, and the pupils are not required, in any instance, to pass over the corridors of the main building or to make use of the principal stairway, which is only intended for the use of officers, teachers and visitors.

The principal entrance to the first story is in the center of the main building; but there are two other entrances from the front, upon the same floor, one in each wing, which are intended for the use of the pupils.

The superintendent's private rooms are entirely separated from the other apartments, by two pair of folding doors in the corridor, and no communication is necessary through that part of the building. These rooms may be approached both from the main entrance, or

from the entrance in the male wing, the latter being a kind of private entrance for the superintendent. His kitchen being under the dining room, males are served by a dumb waiter. The spare rooms in this part of the building are intended for guests, such as trustees, physicians, &c.

The boy's study, with book room, is in the same wing with the superintendent's rooms, but not connected therewith, and has its own communication with the other stories.

The rooms of the steward are upon the same floor, in the main building, close to the male wing, while the matron's and lady teachers' room, which are connected together, are near the female wing.

The reception room and baggage and visitor's attendant's room are near the main entrance.

The ironing room, the sewing room, and the dress-making room, together with a store room for materials and implements used in these rooms, and the girls' study, are in the female wing, upon the first floor.

The bath room in that wing and upon the same floor is for the use of female employees.

There is also a rear entrance to the first story, in the center of the main building, and passages to the front along the principal stairs.

The second story contains eight school rooms in the main building, and one school room for the primary department in each wing. A large dormitory for girls, a dormitory for high class girls, both connected with a wash room, a parlor for high class girls, the assistant matron's room, and bath rooms are located in the female wing upon the floor. A large dormitory for boys, a dormitory for high class boys, both connected with a wash room, spare rooms for boarders, and bath rooms occupy this floor of the male wing.

In the third story we find the chapel in the front part of the main building, cutting off communication between the two wings. It may be entered from the corridors of both wings, or from the principal stairway, and is therefore accessible from all quarters of the building, near the female wing, and only accessible from that side, while the boys' hospital and convalescent room has a similar relation to the male wing. Two spare rooms are also upon this floor in the

main building, and are only accessible by the principal stairs; they may be used for teachers' private rooms.

In connection with each of the hospitals we find a bath room, a tea kitchen and a water closet.

The female wing of this story contains a large dormitory for girls, a dormitory for high class girls, both connected with a wash room, the linen room, in connection with the second assistant matron's room, dormitories for female boarders, and bath rooms.

The male wing is occupied by a large dormitory for boys, a dormitory for high class boys, both connected with a wash room, the physicians' office and dispensary, the boys attendant's room, a store room for bedding, dormitories for male boarders, and bath rooms.

The fourth floor extends only over the main building, and may be used as a hall for common festivals, or such other purposes as may be found proper.

All the corridors throughout the building are very spacious, unobstructed by stairs, well lighted, directly from the outside, and well ventilated.

All the stairs are wide, easy of ascent and descent, and lighted from the outside.

Architecture. — The style selected for the building is the "Italian Romanesque," which combines strength, durability, comfort, elegance, taste and good proportions without increasing the cost of construction above such an amount of money as will probably be appropriated by the legislature.

The entire outside of the building is constructed of stone and brick, including the cornice, wood being only used in the construction of the observatory, and in the manufacture of window frames, sashes and doors.

Height of stories. — The basement to be twelve feet between floor and ceiling, when completed, the first and second stories to be fourteen feet, the third story of the center building to be sixteen feet, in the wings fourteen feet, and the fourth story thirteen feet, all in the clear.

This building must be constructed and finished throughout as hereinafter described, and anything shown by the plans and drawings,

and not hereinafter particularly reserved or described, which is necessary to complete the entire work of the building, is to be done at the cost of the contractor, notwithstanding such omission.

MASON'S WORK. — EARTH WORK.

Excavation. — All necessary excavations must be made for the basement, trenches for the foundations, and sewers, and also for the cisterns, according to plans and sections. The trenches for sewers must be dug where and of such dimensions as may be determined by the superintendent. When a sewer is completed and thoroughly set, the earth to be well rammed round it, as also in the spaces round the walls of the building when they have become hardened.

Filling. — After using so much of the earth as shall be needed in filling up around the walls, drains, &c., the balance or surplus earth shall be used in filling up around the outside of the building, as will be directed by the superintendent, so as to leave the surface of the same at a proper grade and level, to correspond with the "ground line" of the building.

Removal. — Remove from time to time, during the progress of the work, all soil, stone and other rubbish that accumulates in and about the building. The same to be carried off the premises, if so directed by the person superintending the work.

The bottom of all excavations to be perfectly smooth and level, or have such inclination as will be directed.

CONCRETE.

The foundations of walls to be of the best concrete, composed of small stone, broken to the size of hens' eggs, sharp sand, and the best quality of Louisville cement, properly mixed, and thoroughly rammed into the trenches, so as to form a compact bed of the dimensions required by plans. The foundations of all the outside walls to be 3 feet wide and 2 feet thick.

STONE MASON'S WORK.

Wall. — The basement walls to be built of the dimensions shown on plans, of the best quality of rubble masonry, the stone to be of even beds, sound, and the best quality of the kind selected, laid on

its natural bed in the best lime mortar. At least one-quarter must be bond stones, in width two feet, and not less than five inches in thickness; the interstices between the stones to be well filled with mortar and spawls.

Bad work. — The too common practice of filling the interior of a wall with stone chips and then plastering them over with mortar, thereby leaving the interior of the wall nothing but a honey comb, can not be too strongly condemned, and will not, under any circumstances, be regarded as good work; but the wall must be made entirely solid with stone and mortar, the interior cavities to be slushed with mortar, and the small stones necessary to fill them *driven into the mortar.*

Pointing. — All stone walls must be properly faced and pointed wherever exposed to view and must be levelled off for the brickwork. Walls carrying floor joists must be built up fully to the *top* of the timbers, and not to terminate at the under side of the same.

Footings. — All the walls are to be commenced with proper footings, and such offsets left as may be indicated by the plans. The footing stones resting upon the concrete should be not less than two feet square and eight inches thick, and should have good beds. They must be well and solidly laid in mortar.

Mortar. — The mortar for the masonry must be composed of clean, coarse, sharp sand and fresh lime.

Flues. — Flues in walls to be lined with brick, where required.

CUT STONE WORK.

Material. — All the window and outside door-sills, the bases and caps of the turrets, the belting course of the first and second story, the window and door caps in basement, the coping of main cornice and balcony, the steps to the first story, the main stairway on the inside &c., are to be of good quality of lime stone of a "blue-white" tint and bush hammered with a drove upon the outer edge. All the stones used must be free from seams, cracks, or imperfections of every kind.

Check groove. — Door and window sills and the water, table and belting courses and coping of the cornice, to have a groove cut on

the lower side, so that the water may not run down upon and stain the wall.

Steps.—Door steps to have a pitch on top of one-eighth of an inch to each step.

Setting.—All cut stone to be of the sizes, dimensions and patterns as shown on detail drawings, and must be set with a mortar joint not exceeding one-eighth of an inch. Cramps and anchors must be used where it will be required by the superintendent.

Pointing.—All cut stone work must be pointed with cement in the best manner after the work has been set, and the mortar become perfectly hardened.

BRICK WORK.

All the brick walls, piers and area-walls must be constructed as shown and figured upon the plans; they are to be constructed of a good quality of well burned sand-brick, and none are to be used outside, or where exposed to damp or frost, that will not stand the weather. All walls which are to be exposed to view, are to be faced with the best brick, *selected* as well with reference to color, as to smoothness and durability; and to be laid with a “struck joint.”

Wetting.—If the brick be laid in dry weather, they must be thoroughly made wet before laying; and in all cases the bed joints are to be well filled with mortar, and the vertical joints well “slushed up.”

Headers.—Have a heading course to every smooth course of the rough work.

Chimneys and Flues.—Build all chimneys and ventilating flues as indicated in the plans, taking care to lay the brick close, and fill the joints well with mortar. The flues are to be laid as straight as practicable. They must be smoothly plastered on the inside and left entirely clear from all refuse material when finished. The chimney tops to be neatly finished. The ventilating flues to be provided with “Emmerson’s Caps,” and to have two ornamental iron Registers in every room through which they pass, one near the floor and one near the ceiling, as will be directed by the superintendent.

Arches.—Turn all necessary arches and furnish center for the same. Turn arches to all openings over the wooden lintels.

Anchors. — Furnish and set all necessary anchors of one-half by two-inch iron with plate heads, and secure them well to the timbers. There must be in each tier of joists, to every ten feet of wall, also to each pier, one anchor, extending on the joists three feet; these joists, in each tier, at their partition-wall bearings must have iron anchors four feet long, spiked to the joists.

Bond Timbers. — Each tier of joists must rest upon two by six inch bond timbers, solidly laid in mortar.

Turrets. — Build and construct the turrets upon the corners as indicated on the drawings, of white Milwaukee pressed bricks. Select the very best shaped bricks for that purpose and lay them very carefully.

Cornice. — Put up the cornice and other ornamental work as shown on the elevations and detailed drawings, also of Milwaukee pressed bricks.

Bathing Basins. — The bathing basins adjoining the play rooms to be of the dimensions indicated by the plans, and 3 feet 6 inches deep. The walls to be 13 inches thick, laid in the best manner in Louisville cement mortar, and covered with three-inch limestone coping, 14 inches wide. The bottom to be covered with a course of brick laid on a bed of four inches of concrete, and grout the same with cement. Plaster the interior with cement and make the basins entirely water tight.

Sewers. — A barrel sewer fourteen inches in diameter to be constructed of good hard burnt brick, and to be connected therewith as many nine-inch stone pipe drains as may be directed by the superintendent. Have four-inch overflow pipes with traps to the cisterns and connect them with the drains and sewer. Also connect the cisterns with four-inch pipe, as will be directed.

Cisterns. — Build four cisterns, each holding 80 barrels, where the superintendent will direct. Lay the brick in cement, and cover the bottom with a course of brick laid on a bed of four inches of concrete, and grout the same with cement. Plaster the interior with cement, and make it perfectly water tight.

Footings. — All brick walls and piers must be started with proper footings of the very hardest brick laid in mortar.

Piers.—The piers located in the bathing basins must be started two feet below the bottom of the same, and must be laid in cement mortar. These piers must be plastered with cement on the outside.

Range.—Furnish and put up a first class iron range in the kitchen, in the usual manner, with red pressed brick, and have a water back attached.

Pavement.—Fill in the bakery, cellar and laundry to the level of the basement floor with earth, and pave these apartments with brick, laid upon a bed of concrete, six inches thick and grout with cement.

Patching.—Do all necessary mending and patching which may be made necessary in the execution of the other branches of the work, and leave every part in good order when delivered up as finished.

PLASTERING.

How done.—All the brick walls and stone walls of the basement, first, second, third and fourth stories, except cellar and laundry walls, are to be plastered with two coats of brown mortar and one coat of hard finish on the wall.

Lath.—All the wood partitions and ceilings must be lathed with good dry lath; they must be put on one-half inch apart and nailed with five nails to the lath. They are also plastered three coats, as above stated, except the cellar ceiling, which is plastered two coats and white washed.

Mortar.—The mortar is to be made of clean, coarse sand, and a good quality of lime, and for each barrel of lime used, a bushel of good plastering hair. The lime is to be well slaked and screened, and much caution should be used that the hair be not burned in slaking the lime. The mortar is to be put on in heavy coats, made straight, and in every respect finished in a thorough manner. Should the finish show cracks, stains or blisters, or the lime in the brown mortar slack, so as to break through the surface, it will be condemned as bad work. The mortar must be made up one month before the same shall be allowed to be used within this building in any of the plastering.

Patching.—The plasterers will do all necessary patching and

mending after the carpenters and other artisans have finished the work in their several branches.

Wooden bricks, &c. — Wooden strips and bricks must be put in the wall wherever required by the superintendent.

CARPENTER'S WORK. — FRAMING.

Kinds of timber — Joists — Bridging — Trimmers and headers. — Unless otherwise specified hereafter, the timber to be used in the construction of this building is to be pine, of good quality, free from knots or other defects, that will materially impair its strength; and in all cases to be suitable for the place where it is to be used. The joists to be dry, if such can be procured. They are to be made of equal widths, if not already so, and joists over nine feet long are to be cross-bridged with one tier of bridging, and an additional tier of bridging for every additional ten feet in length well fitted and nailed to the joists. All necessary framing around all stair-ways, flues and chimney's must be done properly. Trimmer and header joists are to be doubled, framed together with a tusk tenon, and pinned outside the trimmers. Joists carrying a partition above are to be doubled. All the joists of this building to be two by twelve inches, and are laid sixteen inches between their centers, if not otherwise shown upon the plans and sections.

Girders. — The girders of the several stories are of the dimensions shown upon the plans, well connected with each other, supported by iron columns of eight inches diameter, and the joists are properly framed into them.

Studding. — The studding must be dry and will be two inches thick, and two inches less in width than the thickness of the partitions, as figured on the plans. Set all studding sixteen inches between centers, and brace them well.

Double studs. — Door studs are to be doubled. Partitions over joists, not supported beneath, are to be properly trussed. The studs at the angles of the rooms are to be spiked together in the most thorough manner. Studs are not to be spliced in the height of a story.

Bond timber. — Bearing strips of two by six inches scantling must

be set in mortar, upon which the joists must rest. All proper bond timber, and wooden bricks, of every kind, necessary for the proper execution of the work must be furnished and placed in their proper positions.

Lintels. — All openings, in stone or brick work, to have wooden lintels, in no case less than of four by eight inches timber, and of the required width; and in all cases where not a backing for an arch, or cap, must be wide enough to cover the entire thickness of the walls.

Roof. — The contractor shall frame and construct the roof of the building according to the plans, sections and detail drawings, in the most thorough manner, and furnish and fix strongly all requisite straps and other iron work required. All the plates, studding, joists, sills, posts, braces, rafters, hip and valley rafters, &c., required for the construction of the roof, to be of the sizes indicated on the roof plan and sections thereof.

Flooring. — Lay all the floors with narrow one inch flooring planks, well laid, and driven together and blind nailed. The flooring throughout must be of good quality, well dressed, tongued and grooved together, joints and headers made even and smooth, and well nailed to every joist.

Observatory. — Frame and put up the observatory in a proper and strong manner and in accordance with the plans, sections and details.

Deafening. — The floor of the first story to be deafened by spiking cleats to the sides of the joists, resting - pieces of inch board thereon, and covering them with a coat of mortar two inches thick.

FINISHING.

Roof. — Line the roof with good, dry, common inch boards; lay them close and nail them well.

Tinning. — Cover the roof of the entire building with the best quality of leaded roofing tin, locked and soldered on both sides, and painted two coats on the top side.

Gutters. — All the gutters and downfall conductors to be of galvanized sheet iron, of Emory's patent, and the gutters to be constructed in such manner as to convey the water to the downfall

conductors, which carry the same to the tanks, the cisterns, or to the ground, as may be directed by the superintendent. Make perfectly tight around all chimneys and shafts, with the best quality of tin. The downfall conductors to be 5 inches in diameter.

Scuttle. — Have a scuttle in the roof of each wing, properly constructed and covered with tin, same as the roof, and step ladders leading thereto from the upper story.

Porch. — Lay the floors of the porch and balcony with narrow, tongued and grooved one and one fourth - inch planks, and set the joints in lead and oil. These floors to have two inches pitch to the front, and the balcony to have two 2" discharge pipes of tin.

Windows. — All the windows to be of the sizes and forms shown upon the plans and detail drawings; circular or segment head on the outside and square inside. The frames must be made with boxes for weights; hang a parting strip between the weights; put into the pulley stiles best axle pulleys, and finish them in every respect in a neat and thorough workmanlike manner, as shown on the details. Make all the sash 1 $\frac{1}{2}$ ins. thick, fit them with care, so that they may run closely; bevel the inside of the lower rail, where it strikes the stop, and fit the stop to it. All sash must be double hung, with patent sash cord and cast iron - weights, and to have sash locks in the basement.

Architraves. — Make the architraves in the several stories as per details. Those in closets, pantries and basement to be seven inches wide and entirely plain. Panel the jambs and soffits of all doors in brick walls, as per detail.

Doors. — All doors in this building must be made the styles, forms, thickness and dimensions as the plans and detail drawings require. They must be made of the very best white pine, thoroughly seasoned; all fitted in their respective places, hung and trimmed complete, with suitable hinges, locks and bolts, as hereinafter specified, and all provided with hardwood thresholds, five - eighths of an inch thick. All the doors, except closet doors, to have transoms, hung with pivots at their centers.

Front door. — Finish the front door and other entrances as per

plans and details; make the door in two leaves, two inches thick, with large mouldings, make the threshold of cast iron.

Door Furniture—locks.—Hang each and all doors with three good loose joint butt hinges, each hinge four inches square. To the outside doors put on good eight-inch mortice locks, with safe night-works, furnished with duplicate keys. Put on to one leaf a good sliding flush bolt at top and bottom, to have brass facings. Put on to basement entrance doors, iron six-inch slide bolts, at each end of the door. All the doors within this building (except closet doors) must have the best pattern American mortice locks, with brass bolts, catches and keys. No locks shall have two keys alike. Put on to all the doors white mineral knobs. Put on to the closets a good quality of closet locks with keys and white mineral knobs. All door locks in basement to have dark mineral knobs. Put turned hardwood straps to all the doors, where required, to prevent the door key and knob from injuring the plastering. Put on top and bottom bolts to all folding doors.

Folding doors.—The folding doors of the several stories to be made of similar pattern with the single doors, and to have also transoms. The folding doors subdividing the corridors to be made like the “vestibule door” upon the detail drawings.

Base.—The base for the several stories to be as shown upon the details. In closets, &c., make the base entirely plain. Have wainscoting in all the rooms of the basement which are provided with wooden floors. The wainscoting to consist of matched and beaded boards, about three inches wide, capped in a proper manner. Make it three feet high.

Pantry.—The pantry is to be provided with shelves, as will be directed by the superintendent.

Store room.—Fit up the store room with shelves, as will be directed, and have six drawers therein.

Cleats.—Have cleats with double iron hooks, not more than eight inches apart, in all dormitories and single rooms, as will be directed.

Presses.—Have presses in the dormitories, as shown upon the plans, provided with shelving, hooks and panel-doors, properly hung and secured, as will be directed.

Kitchen sink.—Build a good wooden sink of $1\frac{1}{2}$ inch plank, groove the angles together, and set them in lead and oil; put a door under it, of the same material as the wainscoting and put on top a board for a pump.

Boiler stand.—Case up around the boiler stand in a neat manner.

Dumb waiter.—Have a dumb waiter from the laundry to the ironing room, properly put up. Put up all necessary boards, for water pipes &c. and do all and every necessary cutting, mending and patching for and after the plumbers and other artificers.

Dresser.—Put up a strong dresser, as indicated on the plans, with six drawers.

Laundry.—Build six wash tubs of two-inch plank, groove them together and set the joints with lead and oil. Set them up in a convenient manner, and provide a lid, properly hung, to each.

Bath and wash rooms.—Put up the partitions of the bath rooms of inch flooring, planed both sides, with a cap on top. Have wainscoting six feet high against the wall; enclose the bath tubs with the same material as wainscoting is made of, and case it neatly on top; also enclose all the wash basins and have a door under them. Fit up the water closets in proper manner. Put up a cleat and hooks in each of the bath rooms. Encase any or all water pipes, inside or outside the building, which may require it.

Grounds.—Put up all necessary grounds for windows, doors, bases, &c., full three inches thick. All the casings, bases and all the interior finish shall be put up after the plastering has been done; it shall fit accurately and close to the floor and plastering. The whole to be done in the most substantial and workmanlike manner; with thoroughly seasoned best quality white pine, free from knots, sap, or defects.

Stairs.—Build all the stairs indicated upon the plans, except the main stairway, which is of cut stone, with moulded strings, scroll brackets, treads one and three-eighths inches thick, ash, with moulded nosings, grooved and glued to the risers, and both housed, wedged, and glued to the strings, and the whole thoroughly supported on suitable strong frame work of timbers. The hand rail must be four inches wide and two and a quarter inches thick. The balusters must

be two inches and a half square base, turned shaft and neck mould, of a neat pattern; the hand rail to be made of black walnut, the balusters of ash. Have turned octagon newel-posts, ten inches diameter, where required. Hand rail, newel-posts and balusters to be varnished two coats, after having been smoothly sand-papered.

Tanks. — Construct four tanks of two-inch planks, and of such dimensions as will be directed by the superintendent. Provide such bolts, straps and other iron work as will be required for the purpose.

Observatory. — Finish and complete the observatory as shown upon the plans; cover the roof with best quality of roofing-tin, and paint the whole three coats of white lead and oil, of such tint as will be directed.

Steps. — The platform and steps in the rear of the building to be constructed of wood, all other steps of stone.

PAINTING AND GLAZING.

Painting. — All the wood-work shall receive two coats of pure lead and linseed oil. All the doors, windows, architraves, base and other inside wood-work in the first story shall be painted white, in all the other stories it shall be painted of such color, tints and shades as the superintendent shall direct. All the window frames shall be painted brown, and all the outside doors to be grained in oil, and varnished, to imitate oak. Sand paper smooth all inside work before second coating; putty up all nail-holes, joints, cracks or defects.

Glazing. — All the windows and transoms must be glazed with the number and size of lights as shown upon the details. All the glass to be properly bedded, sprigged, back-pattied, and left whole and clean at the completion of the building. All glass to be best American cylinder glass.

The outside and vestibule doors to have enameled pannels and transoms, the glass for the same to be double French, and the ornamentation to be of a neat pattern, as will be directed.

PLUMBER'S WORK.

Water. — Water will be introduced from four large tanks under the roof to all the bath tubs, wash basins, water closets, and wash

tubs of the building, and also to the bathing basins, the sink in the kitchen and the water backs of the range and heating apparatus, connected with circulating copper boilers that will contain two hundred gallons of water each. All the bath tubs and wash basins, the bathing basins, the wash tubs in the laundry, and the sink in the kitchen are therefore to be provided with hot and cold water.

Pumps. — Have a three - inch double - action brass force pump in the kitchen, and a very large iron double - action force pump in the laundry and one in the cellar; the two latter of a capacity of 30 gallons a minute, and connect them with the tanks and cisterns.

Tanks. — Make each tank 12 feet square and 4 feet deep, all in the clear, and line the same within with lead, six pounds to the square foot. Connect the tanks with 2 - inch lead pipe, provided with a stop - cock; have overflow pipes connected with the waste pipe: and also the necessary valves and stop - cocks to prevent the water from circulating in the pipes.

Pipes. — All the pipes to be strong and of sufficient sizes for the proper supply and discharge. All waste and soil pipes to be made of sheet lead, six pounds to the foot, and to have six inches diameter. Put up all necessary brass cocks, as will be directed by the superintendent. All waste and discharge pipes to be connected with the sewer in proper style. All section pipes to correspond with the capacity of the pumps.

Wash Tubs. — Attach to the wash tubs a one and one - fourth inch waste pipe; also supply pipes and cocks for hot and cold water.

Bath Tubs — Basins. — Put in each of the bath rooms an enameled iron bath tub with one and a - fourth inch waste pipe, hot and cold water supply pipes with brass cocks. Provide and set up, as per plans, in the wash rooms, the basins, to be enameled iron basins with proper pipes and cocks: put also up iron hoppers, where required, with compression cocks to waste after rising from the seat; all complete and in good order.

Bathing basins. — The bathing basins must be provided with the necessary supply, waste and overflow pipes, of such dimensions as may be directed by the superintendent, and to have all necessary cocks, valves and other fixings, to make them complete.

Floor lining. — Cover the floors in the bath rooms 3' 6" in width and 3" up the wall, and the entire length of the room, with lead, five pounds to the foot, and incline the same toward a point connected by pipe with the waste pipe.

Shower. — Provide and put up in the best manner showers to some of the bath rooms, as will be directed.

All the plumber's work to be done in the best and most workmanlike manner.

IRON WORK.

Columns. — Provide cast iron columns 8 inches diameter in the middle, and of such pattern and height as will be required for the purpose of supporting the girders in the several parts of the building.

Provide the iron castings upon the turrets, as per plan, and all other iron work required in the construction of the building.

All the castings must be sound, of even thickness, clean, with sharp lines and edges, and must be finished in the most workmanlike manner.

Ventilators. — Twelve ventilators of galvanized sheet iron must be furnished, and put up through the roof, for ventilating the space between the roof and the upper story ceiling. The ventilators to rise 15 inches above the roof and to be 18 inches in diameter, and be covered on top in such manner as to prevent the driving in of any rain or snow.

GAS FITTER'S WORK.

Apparatus. — The building to be lighted by two "Automatic Gas Machines," of Drake's patent, to be set up in the rooms provided for heating apparatus.

Gas Pipes. — Gas pipes must be laid throughout the building, of a size equal to lighting all the rooms in a full and proper manner. The whole of the pipes must be put up and left in good working order, ready to receive the chandeliers, hanging lights, brackets, &c.

WORKS FOR HEATING.

Materials. — The contractor for heating and ventilating the building must furnish all the materials required for said work on the build-

ing of the best quality, and do and perform all the work thereon in the best and most approved workmanlike manner.

Apparatus. — The heating must be done by two steam generators, of Baker, Smith & Co.'s "patent low-pressure, self regulating steam, warming and ventilating apparatus."

Wherever practicable, the rooms must be warmed through registers placed in the wall, with the heating surfaces beneath. All other rooms to be warmed by tubular radiators, placed directly within them. [See explanatory clause below.]

ELECTRICIAN'S WORK.

Lightning Rods. — Put up two "Patent Copper Scroll Lightning Rods" upon the main building, and two upon each wing. Run lines down and into the ground, until they reach earth that is continually moist. Raise the rods to a proper elevation; secure them well in their place and terminate them in a very sharp silver-plated point.

FINALLY.

The contractors must furnish and provide, at their own cost and expense, all the needful materials of every description, and all artisan work required by said plans, specifications and details, to complete said house entire in all its parts. All the materials must be of a good quality, and the work shall be done in the best workmanlike manner, and to the satisfaction of the superintendent. All the floors and stairs to be properly scrubbed before the last coat of paint is put on.

EXPLANATORY CLAUSE.

It is understood that the heating and ventilating apparatus above referred to, is to be of the latest and most improved pattern, and to be put up in the most approved, thorough and workmanlike manner, and guaranteed to be capable of producing the temperatures named for the several apartments in the coldest winter weather, viz:

The drying room to 100 degrees. All the dormitories, except those on 4th floor and those on 3d floor of wings, to 50 degrees. The water closets and wash rooms and corridors throughout, ironing rooms and store rooms in basement, linen room and bedding store

room on 3d floor to 60 degrees. The rooms marked "heating apparatus, fuel, broom and trunk rooms, private kitchen, pantry, kitchen-bakery and bakery-store room," in basement, also large dormitories in 3d story of wings, and the whole 4th floor to have no heat except for the water tanks. All other apartments to be warmed to 70 degrees.



